Remarks

Reexamination and reconsideration of the application as amended is respectfully requested.

Applicants would like to thank Examiner Chan for the courtesies extended during the personal interview conducted on May 8, 2003, the substance of which is summarized in the interview summary record. It was agreed that the prior art reference does not teach hot wire cutting of three-dimensional compositions. Schjeldahal discloses the use of hot wires to form bags where two adjacent films were cut in a sequential rapid manner to rapidly form discrete plastic bags. Applicants argue that the references were not suitably combinable for a number of reasons.

First, the Kalt reference discloses forming a filtration matrix formed of filter elements 22 and 24 formed of polymeric film coated with a metallic coating. The method for constructing the filter is described in the paragraph bridging cols. 3 and 4 where individual discrete Mylar® metallic coated films are deformed under pressure, cooled and coated with a contact adhesive and then applied to a second conductive film layer, also having previously been deformed. This is done repeatedly and then the final formed element is then supported in a plastic frame. There is no indication of slicing the formed filter matrix for any purpose. The final shape of the filter is predetermined by the shape of the individual film elements that are deformed under pressure.

The secondary reference, Landi, describes a panel for use as an energy absorbing structure such as structural elements in aircraft, boat halls and other uses where there is a desirability of having an energy absorbing structural component. There is no indication that these elements are suitable as filters and as such there would be no motivation for one faced with the primary reference Kalt to even look to this art. Initially, Kalt does not indicate any desire to preform a block of filter material and then cut individual filter elements from the block. As such, Landi is neither in the art area of Kalt nor specifically related to a problem faced by Kalt. Further, the general cutting methods described in Landi would be detrimental to a filter structure such as Kalt. Most cutting operations will generate significant debris (i.e., dust) including water jet cutting or cutting using a blade or shearing element such as described in Landi. This would have significant detrimental

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effects on the Kalt structure in that the dust would tend to significantly reduce the effectiveness of the final filter. Finally, the Landi reference only describes that he can use suitable methods well known for cutting three-dimensional structures. One would assume that this would be water jet cutting or use of shears or knives, blades or the like. Landi et al. does not teach that hot wires are suitable for cutting three-dimensional objects. This is supported by the Schjeldahal reference which is directed solely at cutting a two-dimensional flat web using hot wires and indicates that a severe problem with hot wire cutting is heat dissipation, which would of course be exaggerated where one used to use a hot wire to cut a three-dimensional as in Landi verses a two-dimensional structure such as described in Schjeldahal.

In view of the above, it is submitted that the references are not suitably combinable as described. They come from three disparate art areas dealing with three disparate problems, each of which has a unique solution, however, there is no indication of combining these three disparate teachings from the filtration art, the bag forming art and the wall panel art to arrive at the invention method of directly forming a three-dimensional filter structure.

In view of the above, further and favorable action in the form of a Notice of Allowance, is believed to be in order and such is respectfully requested.

Respectfully submitted,

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